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ABSTRACT

The document summarizes a one day training session conducted at the CEGEP (community college) of Hull in the Province of Quebec on June 3, 1974 for 88 professional educators representing 43 different occupational clusters. The purpose of the workshop (and of the document) was to restructure job oriented community college programs towards the multifaceted needs of the job market. Thus, careers were stressed along with the criteria of developing independent learning packages. The document includes a sample module learning package format complete with objectives, pretests, learning environments, and posttests. Criteria are provided with which to judge the practical value of modules developed. These criteria range from course chopping (random and haphazard modules) to module building (practical, organized, balanced, relevant modules geared to rendering the successful learner more fully employable). Twenty-five transparencies used at the conference are also included. (Author)

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TITLE:

DEVELOPING OCCUPATIONAL EDUCATION MODULES THAT CAN ADD UP TO CAREERS

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FILMS

F --- FUTURISTIC
I --- INSTRUCTIONAL
L --- LEARNING
M --- MODULES
S --- SYSTEMS

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INTRODUCTION

DEVELOPING OCCUPATIONAL EDUCATION MODULES THAT CAN 'DD UP TO CAREERS

This document is addressed to educators who have developed module learning packets for students. A module learning packet is composed of four elements:

Specific Objectives
Diagnostic Pretests
Alternative Learning Environments
Master Posttests

From an external point of view, any teacher who is able to subdivide material into four separate piles with the above four names is able to put together a package that resembles a module. Such teachers who put together a variety of categorized but uncorrelated material are termed course choppers. A course chopper is able to imitate the external requirements of a module by providing objectives, pretests, learning environments, and posttests.

A module builder goes a step forward. The module builder thinks of course objectives as entry level job requirements. These objectives are on the mastery level.

Students coming into the course are given diagnostic pretests in order to determine which objectives of the module have been successfully attained previously. Similarly, basic prerequisites for the module are diagnosed for certification purposes. If the student lacks a prerequisite, the diagnostic pretest points to a weakness that should be corrected before the module is attempted.

Learning alternatives provide a variety of choices for individual students. Rather than be told of the only way to achieve a prespecified objective, each learner is given a wide choice of alternatives. If aptitude is defined as speed in learning, the alternatives must provide for a wide variety of learning rates and speeds. If learning style is defined as a wide variety of alternative paths, each module must provide for a wide variety of learning styles.

After the objectives have been accepted by the students, after the student has had a chance for a diagnostic assessment with a pretest, and after exposure to sufficient learning alternatives, it is time to present the student with a mastery posttest. This mastery posttest is necessary to determine the learner's gains score. The gains score is the difference between the pretest and the posttest. The gains score is the impact made upon the learner by the module. The gains score is a documentation that some learning has occurred in the learner.

OBJECTIVES

As a result of this module entitled, DEVELOPING OCCUPATIONAL EDUCATION MODULES THAT CAN ADD UP TO CAREERS, teachers and learners alike should be able to:

COMMUNICATE on a level of practicality that enables occupational programs to stress CAREER PATH PROGRESS.

FOCUS on evaluating achievement of goals and of commitment to goals.

EMPHASIZE results, not personalities.

DISCOVER a realistic scheme for job improvement and personal growth.

As a result of going through this module, both teachers and learners alike should be able to:

DEVELOP objectives personally acceptable to individuals concerned.

STRESS measurable objectives that are visably evaluated.

DEVISE objectives that provide interesting and worthwhile tasks.

ATTAIN the objective desired within a reasonable period of time.

DISTINGUISH between short-run and long-run goals and objectives.

STATE the objective clearly and simply in such a way as to be easily communicated when needed.

CONCENTRATE on objectives that are both qualitative and quantitative expressions of valid human needs for a variety of career paths.

PRETEST

During the following pretest exercises, the reader will be able to distinguish between the terms module builder and course chopper.

Attempts are made in both the pretest and the learning environments provided to give the reader common sense directions as to appropriate career path development models. A model is something that can be imitated with success and a feeling of accomplishment.

The time spent on this pretest is a diagnostic preparation for the learning environments.

As a result of the pretest exercises, the reader should be able to find appropriate learning opportunities in the learning environments provided in a special section.

PRETEST SAMPLE

Some module builders commit a fundamental error. They build modules as they built their courses only smaller. Then, one day, they discover that these modules aren't much different than their former approach to instruction. Instead of concluding, "I didn't do anything very much different than usual," they conclude, "Modules don't work. They're no better than what I have been doing previously."

Try to answer these questions in order to find out if you are a module builder or a "course chopper." Answer with YES or NO.

____ 1. No student should be allowed into a particular module until this student has demonstrated the basic prerequisite skills or equivalent academic credit.

____ 2. Learners are ill-advised to take a course in an area outside their specialty or major area of concentration.

____ 3. Letting students take a course for only a few weeks is a good way to permenently stunt their educational growth potential.

____ 4. Learners should not be allowed to "pick and choose" only those segments of a course that interest them.

____ 5. Slow learners should be given special help, but, if they are really too slow (i.e. SLOWER THAN THE GROUP AVERAGE), they should be taken aside and quietly told to drop the course.

____ 6. Rather than embarrass anyone with expulsion from an overly advanced or specialized course or mini-course, slower learners should be gently but firmly told that they have no place in a particular module.

____ 7. Whenever a student has to learn the same material over and over

___ 7. Whenever a learner has to study the same material over and over again, this should be seen as an opportunity for greater depth rather than dull repetition.

___ 8. Once students know exactly what is expected of them in the final exam, they will tend to avoid studying those "extras" that are so necessary for graduate study even though they don't appear on the final exam.

___ 9. Every student should be compelled to enroll in at least one course in their college career for which they have no occupational need or interest. This gives them a basic introduction to mental discipline which will be invaluable to them in almost any career

Not all of the above statements are completely out of place in curriculum planning. However, each question to which you have answered YES marks you as a "course chopper." Each question to which you have answered NO marks you as a module builder. Each question which you have left blank or undecided pinpoint areas in which you might want to seek out more data and more perspectives.

There is nothing pejorative in being a course chopper. However, it is not the same thing as being a module developer. After a few experiments and a few errors that don't succeed as modules, many course choppers find by trial and error a few simple guidelines. These self-discovered guidelines are enough to transform most course choppers into effective module builders.

Chopped up courses don't add up to careers. Modules, like any good building block that is self-standing and compatible with other skills, do add up to careers--and often, in unpredictable combinations.

The preceding pretest has enabled the reader to determine whether or not the reader's approach to modules is that of a COURSE CHOPPER or that of a MODULE BUILDER.

This distinction between the two approaches is not immutable. In other words, this distinction can change. A reader who starts off as a course chopper can develop into a module builder with the help of this instructional package.

In order to do this, a DIAGNOSTIC PRETEST is provided.

Each question of this diagnostic pretest begins with a letter from A to Y.

This lettering system from A to Y allows the reader to correct any specific deficiency by refer to the transparency with the corresponding letter.

For example, if the reader gives the incorrect answer to question C in the diagnostic pretest, the reader is recommended to check with transparency C.

After the reader has had a chance to look at the various transparencies in the learning environments, a MASTERY POSTTEST will be given to certify the newly acquired competency of becoming a module builder rather than a course chopper.

DIAGNOSTIC PRETEST

DIRECTIONS: Circle the answer selected on the ANSWER SHEET provided.

Compare the answers selected with the ANNOTATED SUGGESTED ANSWER KEY.

TRUE FALSE A. Productivity for teachers means getting things accomplished and objectives attained by learners.

TRUE FALSE B. Paper and pencil testing is the most accurate and objective way to evaluate productivity in the performance and attitude domains.

TRUE FALSE C. In order to avoid confusing a wide variety of learners, each teacher should chose only one way of attaining course objectives and stick to this approach for consistency.

TRUE FALSE D. Career education is a highly specialized area that must be taught only by experts.

TRUE FALSE E. Occupational education boils down to learning how to LEARN and how to EARN.

TRUE FALSE F. Any career objective that does not stress rote memory as the first step is going to be forgotten by students who acquire skills and attitudes that are more interesting to the learner.

TRUE FALSE G. Career education means that all learners must begin to zero in on a small number of occupational options that are close at hand.

TRUE FALSE H. The ability to recognize and analyze today's labor market is a competency required of a career counselor rather than an expectation for every student.

TRUE FALSE I. Realistically, career educators must do more than merely inform learners.

TRUE FALSE J. The aggressive learner has specified career goals, knows how to keep score, and employs a wide variety of alternative learning resources.

TRUE FALSE K. Sooner or later, all students learning with career path training modules need to be exposed to complex goals on the mastery level.

TRUE FALSE L. Complex learning goals, as found in career path training modules, build upon previous learners and basic skills in order to come up with a high quality learning products.

TRUE FALSE M. Career path training modules need to prepare for jobs which exist, emerging jobs, and jobs of the future.

TRUE FALSE N. Career path training modules benefit from having specific checkpoints to enable learners to self-evaluate continuing progress.

TRUE FALSE O. The goals and objectives contained in career path training modules must be clear enough to give a sense of direction and adaptable enough to be changed according to individual and social circumstances.

TRUE FALSE P. Any time the major career education objectives of a career path training module get beyond ten in number, it can be asserted that the module is probably confusing details with overall values.

TRUE FALSE Q. In general, teachers are more experts in teaching than in writing career path training module objectives.

TRUE FALSE R. Self-evaluation permits the learner to keep score in such a way as to be aware of progress as well as of the need for appropriate action.

TRUE FALSE S. Complex evaluation processes defeat the purpose of self-evaluation by requiring the presence of specialized experts.

TRUE FALSE T. Even the best planned career path learning module must be aware of the limits of educational technology.

TRUE FALSE U. Even with large number of learners, educational technology must be used in such a way as to stress individualizing more than stereotyping.

TRUE FALSE V. Learners have the right to choose modules from a wide vareity of acceptable alternatives.

TRUE FALSE W. All career path learning modules must be customized to fit learners and the job market.

TRUE FALSE X. All career path learning modules must be usable as building blocks.

TRUE FALSE Y. All career path learning modules must balance knowledge, performance, and attitudes.

ANSWER SHEET

A.	TRUE	FALSE	W.	TRUE	FALSE
B.	TRUE	FALSE	X.	TRUE	FALSE
C.	TRUE	FALSE	Y.	TRUE	FALSE
D.	TRUE	FALSE			
E.	TRUE	FALSE			
F.	TRUE	FALSE			
G.	TRUE	FALSE			
H.	TRUE	FALSE			
I.	TRUE	FALSE			
J.	TRUE	FALSE			
K.	TRUE	FALSE			
L.	TRUE	FALSE			
M.	TRUE	FALSE			
N.	TRUE	FALSE			
O.	TRUE	FALSE			
P.	TRUE	FALSE			
Q.	TRUE	FALSE			
R.	TRUE	FALSE			
S.	TRUE	FALSE			
T.	TRUE	FALSE			
U.	TRUE	FALSE			
V.	TRUE	FALSE			

ANNOTATED SUGGESTED ANSWER KEY

A. True ---------- Results
B. False ---------- Performance measures are needed
C. False ---------- Several options
D. False ---------- An overview area
E. True
F. False ---------- Interest
G. False ---------- Multiple options
H. False ---------- Learner-centered
I. True
J. True
K. True
L. True
M. True
N. True
O. True
P. True ---------- Keep it uncluttered
Q. True
R. True
S. True
T. True
U. True
V. True
W. True
X. True ---------- Building blocks
Y. True

MODULE BUILDERS

AND

MASTERY LEARNING

In addition to the distinction made between a course chopper and a module builder in the preceding section, stress can be laid upon the different philosophies underlying both course chopping and module building.

Given the average class, the typical course chopper generally expects that about a third of the students will perform satisfactorily or better; another third will learn enough to pass, but not enough to be considered satisfactory; the remaining third will fail or be allowed to squeak through. Many students have been tuned in on course chopping long enough to expect the above results. These same students know exactly into which third of the class course requirements and teacher expectations will sort most of the classroom group.

Course chopping has its effects on materials. The pathetic expecations of course chopping can become self-fulfilling prophecies as teachers, materials, and grading all join together in reciprocal mediocrity.

The error behind course chopping is presuming that most students are not perfectly able to master what the teachers wish to teach. On the other hand, module building presumes that most students are perfectly able to master what teachers wish to teach if the teacher's go about the instructional process the right way. The right way is to stress learner involvement on an active level.

When mastery is defined in terms of a specific set of major objectives which the student can perform by the time a subject is completed, module building is underway. For the purpose of building modules, every course or subject is broken into a number of smaller units. Each unit has its own specific subset of objectives. In this way, mastery of each smaller unit must precede mastery of the larger course or subject matter area.

The objectives of a module spell out the specific requirements for mastery success.

The pretest of a module provide a special diagnostic feedback which allows correction of missing competencies.

The learning alternatives of a module provide a number of different ways to achieve the competencies or mastery aimed at in a specific module.

The posttest of a module help self-evaluating students documents achievement of the objectives of each module.

In the case where the learner cannot pass the posttest, corrective procedures are applied to help the student overcome specific learning problems. Sometimes, the learner returns to the pretest for a diagnosis. At other times, the learner returns to learner activities for more practice in order to put together the major objectives of the module.

The course chopper tries to simplify this process by putting together a number of miscellaneous modules which are more or less interconnected. In the case where miscellaneous modules are completely unconnected, the course chopper has provided a substitute for classroom instruction which is called course chopping rather than module building.

The distinction between course chopping and module building hinges on the evaluation of the learner's progress. This is why mastery learning and mastery documentation is dealt with here as an overview to practical considerations in working with modules.

There are a number of simple ways for a teacher to decide whether course chopping or module building is the predominant activity:

1. In general, 75% of the students enrolled in module building courses achieve as well or better than the top 25% in conventional courses.

2. Students exposed to mastery learning via module building show remarkably greater interest and satisfaction than the course chopper students.

3. Such dramatic outcomes in favor of module building over course chopping are hard to ignore and offer exciting possibilities.

4. The greatest payoff of module building is likely to occur in the teaching of the basic skills which everyone must exhibit before proceeding with abstract learning not immediately subject to measurement.

A module builder does not try to presume that only measurable activities are worthwhile. The module builder tries to measure everything as objectively as possible with available resources.

No module builder will claim to have solved the secret of the sphinx of measuring attitudes. Yet here, the module builder starts with the measurable and tries to come up with a clearly observable hierarchy.

Here is an example from non-verbal communications.

In verbal communication, many people can say one thing and mean another. In non-verbal communication, gestures, smiles, frowns, facial expressions reveal a lot about the person speaking.

For example, some teachers develop the ability to use their eyes to control student behavior by staring, by looking over the tops of their glasses, by winking, by smiling, by narrowing their eyelids. Some glances can say, "Stop that!" Another type of glance can ask a question or demand more attention. After a while, students learn what a certain look means from a certain professor.

All teachers can recall their own experiences with former teachers folding arms, raising hands, shaking one's head, staring, frowning, glaring, and even smiling have meanings that will vary from individual to individual. The meanings are in general hidden, but even the young in elementary, secondary, and higher education begin to catch on after a while.

The point here is that certain things are not that mysterious if they can be understood by a young learner. These mysterious things that have been demythologized are definitely referring to the attitude or affective domain.

Course choppers make the mistake of proclaiming, "We can't measure anything in the attitude domain. Therefore, we will omit attitude objectives in our modules."

From a statistical point of view, there is something to be said for the last statement of course choppers.

On the other hand, module builders say, "There are certain things that have a direct or indirect bearing upon the attitude domain that can be observed and talked about."

Module builders try to be as objective as possible in stating the specific criteria that go into certain subjective reactions. As these criteria are discussed more and more, clarification takes place. An extremist becomes less extreme in the presence of a moderate person. A person who lacks interest and enthusiasm gradually begins to build up a little more interest when exposed to someone whose creativity is not overdone.

The secret ingredient of a module builder can sometimes be found in the teacher's facial expression, gestures, postures, glance, vocal pauses, or a dozen other action that can express a message. These unwritten components of an occupational module are just as important as what goes on paper.

The teacher using a module developed by another instructor can convey to a student that the module is good, inadequate, well done, inferior, very practical, a waste of time, worth studying, not worth the effort, and a host of other meanings.

Teachers can express information without words that would never be stated verbally. If some teachers were aware of the implications of their non-verbal comments, these teachers would immediately retract what the students had decoded from careful and common sense observation.

Don Quixote was put to shame when he began to see himself in a mirror. It is the same way with module builders except that these teachers are not put to shame but are put to reform.

By looking at the entire structure of a course, a module builder begins to realize that the written component of a module is only part of the module.

The non-verbal, the unspoken, and the human element of a module can make the different between success or failure. Some of these elements contributing to success are not measurable with the yardstick, but they are measurable with human common sense and dedication.

NON-ACADEMIC

DIMENSIONS

OF

CAREER EDUCATION

The central non-academic dimension of career education is the apparent difficulty of creating, for a very rapidly growing labor force, not just jobs, but satisfying jobs that will provide the increases in living standards that are expected by the population as a whole and by an increasingly youthful labor force that is better educated, better trained, and more socially aware than ever before.

The need to create more jobs, and better jobs, implies a need to develop the capability of producing more specialized and sophisticated goods and services for sale in an international market, and this, in a more aggressively competitive world.

THE JOB DIMENSIONS OF CAREER EDUCATION

Many students have been able to combine successful performance in school with successful performance on the job. It is the hope of their teachers that the job situation reinforces the educational objectives of the school program.

Sometimes another benefit is over-looked. People do not always realize that on-the-job working conditions can provide objectives that can't be attained in the classroom. Sometimes these are objectives that can't be enunciated by the professor. They must be determined and spelled out by the student. Some of these are in the knowledge domain and refer to on-the-job experience. Some of these are in the psychomotor domain and are summed up in the job description of the job title held by the student. Others of these are in the attitude domain and have been gained through practical experience.

Sometimes, the subject matter the students have learned in school has not been tied into on-the-job skills. This might be the fault of the student or it might be the fault of the teacher. The typical example would be the student who studies profit and lost statements in accounting and then finds himself in a job where he does nothing but push buttons. He doesn't know what happens to the material he processes. He's not quite sure how it fits into the overall job structure. He has almost no idea how it fits into the course he calls accounting.

One question emerges, "Should credit for on the job experience be given out by a formula? Should the formula try to equate credit earned with hours on the job? Or should the formula try to equate credit earned with the objectives mastered on the job?" The answer to this question is more than academic.

ANALYTICAL TABLE OF CONTENTS

for

TRANSPARENCY MASTERS

	FUNCTION
I. INTRODUCTION	
A. PRODUCTIVITY	Encourage teachers to make an impact on learners under their influence
B. ACCOUNTABILITY	Pinpoint specific practices that indicate a lack of basic knowledges and understandings necessary to implement occupational education successfully
C. ALTERNATIVES	Document effective alternatives to some of the most commonly occurring errors in career planning
II. CAREER EDUCATION and OCCUPATIONAL EDUCATION	
A PRACTICAL APPROACH TO LEARNING	
ITS COMPONENTS	
D. A PATTERN, NOT A GIMMICK	Work together with other educators rather than start a new specialty
E. OCC. EDUC. = LEARN	Learn (a) how to learn and (b) how to earn
F. BEYOND ROTE MEMORY	Teach to objectives that go beyond memorization and that are occupationally relevant
G. 1st SIX CAREER STEPS	Allow learner to keep all possible options open
H. LEARN TO EARN	Recognize the requirements of today's labor market

ITS CONCERNS

I. 4 LEARNER TRAITS	Implement learning procedures that will do more than inform learners
J. THE "AGGRESSIVE" LEARNER	Specify learnable targets, tests, and technology that allow for individual differences in learning styles
K. MASTERY LEARNING	Attain complex goals that go far beyond the basic skills
L. COMPLEX LEARNINGS	Build upon previous learnings and the basic skills to come up with a high quality learning product

ITS FUTURE

M. FORESEEABLE / UNFORESEEABLE	Prepare for (a) jobs which exist, (b) emerging jobs, and (c) jobs of the future
N. CAREER EDUC. CHECKPOINTS	Structure each step into a continuing process

III. MODULES THAT CAN ADD UP TO CAREERS

MODULE COMPONENTS (The 3 T's)

TARGETS

O. ELIMINATE FUZZY EDUC.	Pursue purposeful goals whether these goals be preparation for future education, preparation for employment, or both
P. VISIBLE GOALS	Visualize the outcomes of instruction and of learning
Q. TEACHER EFFORT	Think before writing in order to establish priorities

TESTS

R. SELF-EVALUATION — Keep score in such a way as to be aware of progress and needs for appropriate action

S. EASY-TO-EVALUATE — Simplify the evaluation process without lessening validity or practical reliability

TECHNOLOGY

T. EDUC. TECHNOLOGY — Plan ahead to specify what technology can do, will be able to do, and can't do in the foreseeable future

U. BEYOND MASS PRODUCTION — Employ technology in such a way as to stress individualization more than stereoyping

TYPICAL MODULE APPLICATIONS

V. MODULE CAFETERIA — Choose from a wide variety of acceptable and implementable alternatives

W. PERSONALIZED MODULES — Customize your course goals to fit (a) learners and (b) the state of the job market

X. MODULES AS BUILDING BLOCKS — Assemble a wide variety of career possibilities with modules mastered

Y. MODULES FOR BALANCED DIETS — Coordinate objectives (TARGETS), evaluation (TESTS), and resources (TECHNOLOGY) with knowledge (COGNITIVE), performance (PSYCHOMOTOR), and attitude (AFFECTIVE) domains.

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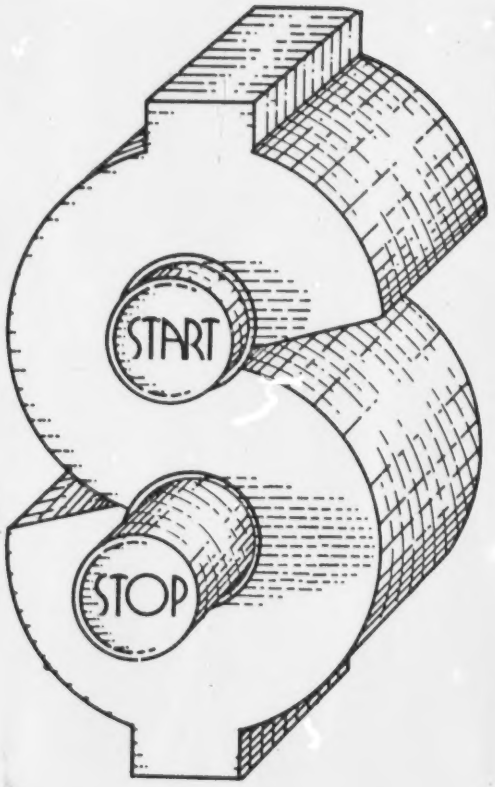
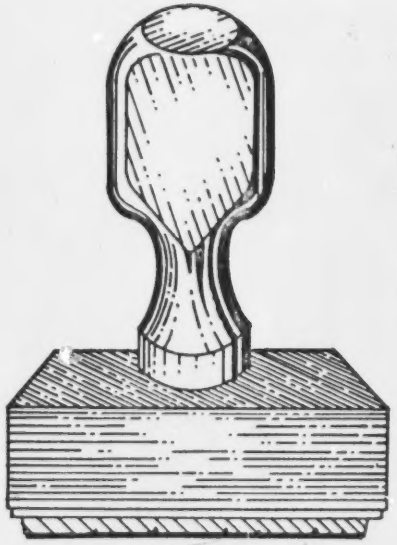
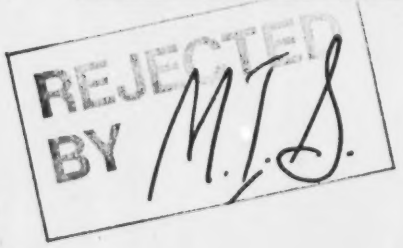


Bold new projects are needed to spur the productivity of impact teachers.





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YOUR TEST RESULTS

seem to indicate that you will fit into a TECHNICAL OCCUPATION

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Consider the alternatives before you upgrade

True, there are often good reasons why switching to the latest system makes sense, but all other options should be carefully examined before making the decision

PLANNING AHEAD

FOR THE WORLD OF WORK

ERRORS

You've got problems--
We've got solutions

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CAREER EDUCATION

IS	IS NOT
AN EDUCATIONAL PATTERN	**JUST ANOTHER GIMMICK**
THIS MEANS	**THIS MEANS**
EDUCATORS MUST WORK TOGETHER AND MORE TOGETHER FOR THE SAKE OF: ● ORDERLY DEVELOPMENT ● HIGH IMPACT ● ECONOMY	**EDUCATORS MUST NOT MERELY LOOK FOR:** ● "NEW" PROGRAMS ● MORE MONEY ● DIFFERENT TEXTS ● CAREER SCHOOLS ● CAREER DEGREES ● CAREER CURRICULA ● CAREER SPECIALISTS ● CAREER TESTS ● CAREER MEDIA ● CAREER EQUIPMENT

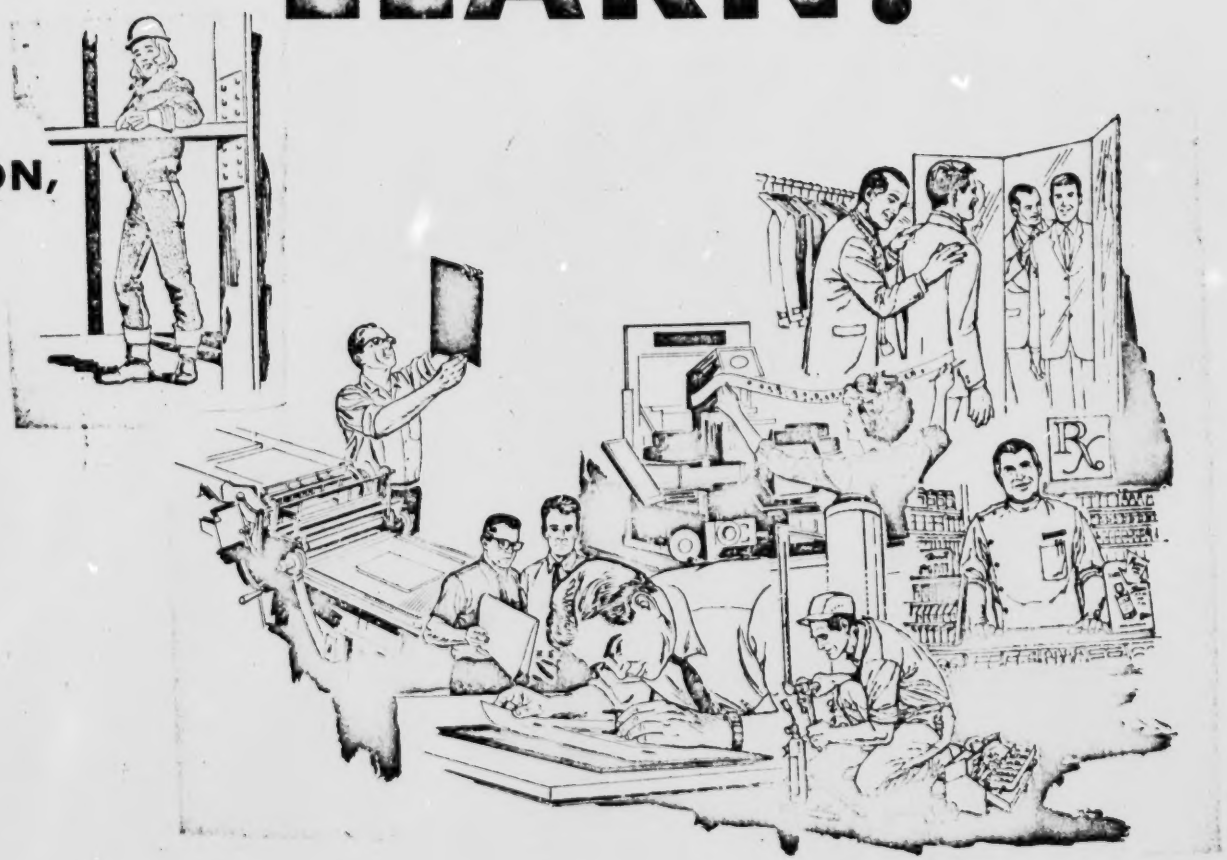
"LEARN, BABY, LEARN!"

LEARN TO EARN:

OCCUPATIONAL EDUCATION FUNCTIONS AS A MEANS FOR LEARNING THE ARTS AND SCIENCES IN REAL LIFE SITUATIONS.

LIKE CAREER EDUCATION, IT IS A SOURCE OF OTHER FORMS OF LEARNING AND A MOTIVATION FOR THESE OTHER WAYS TO LEARN.

OCCUPATIONAL EDUCATION IS NOT A SUBSTITUTE FOR THEM.



NOTE

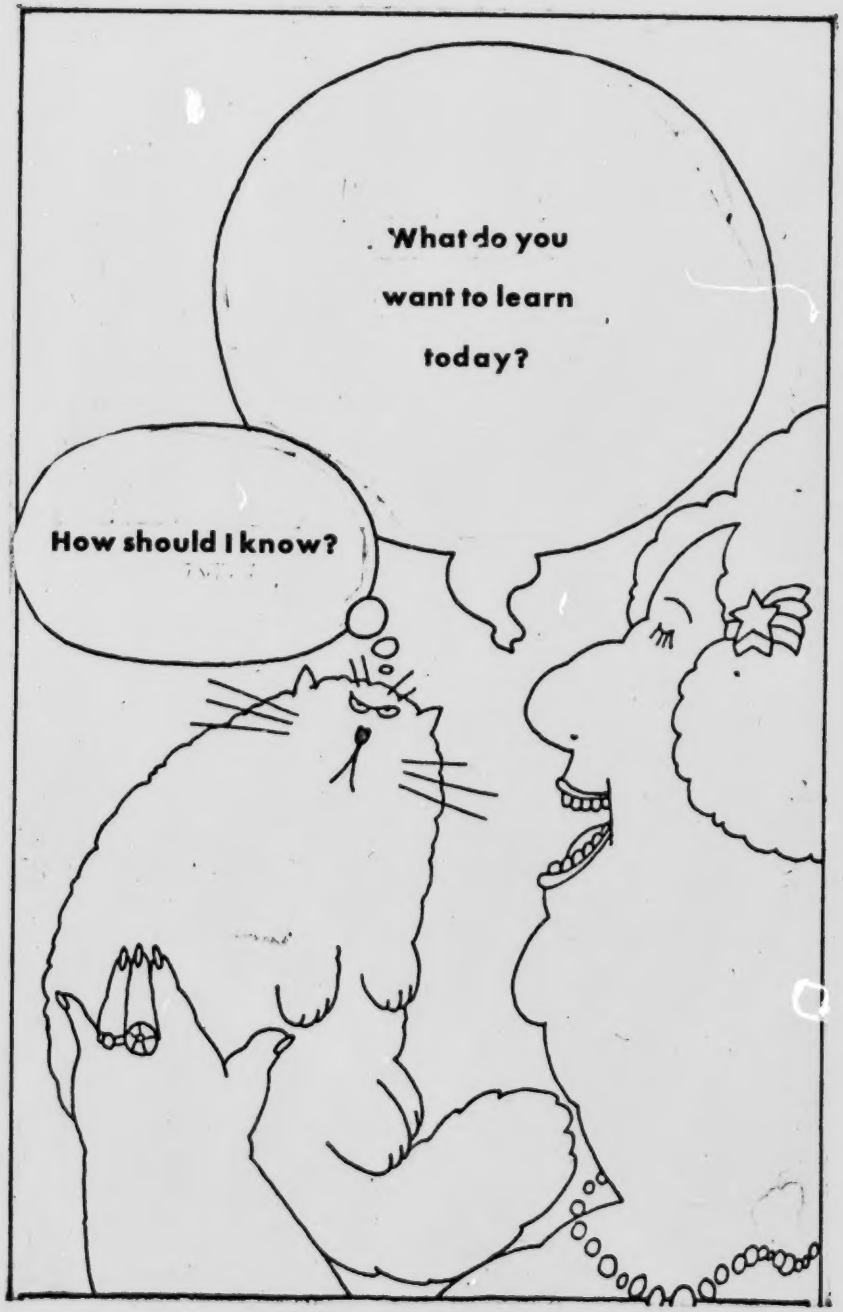
ELEPHANTS HAVE GOOD MEMORIES

AND

CATS ARE INDEPENDENT

BUT

DON'T TREAT YOUR STUDENTS LIKE ANIMALS



CAREER EDUCATION COMPONENTS

BASIC LEARNING SKILLS	RIGHT TO CHOOSE
SELF-UNDERSTANDING	LIFELONG OPPORTUNITY
POSITIVE ATTITUDES	CONTINUING PROGRAM
EARLY EXPOSURE	PART OF EVERY COURSE
PLANNING PROCESS	WITH WORK EXPERIENCE
SPECIALIZED TRAINING	WITH ALL OPTIONS KEPT OPEN

LEARN TO LEARN

IF THIS LEARNER LEAVES SCHOOL UNEDUCATED OR UNSKILLED, HE WILL FIND HIMSELF DISADVANTAGED IN THE LABOR MARKET.

THE DEMAND IS GROWING FOR HIGHER LEVELS OF SKILL. THIS RESULTS IN THE MANPOWER PARADOX OF WORKERS WITHOUT JOBS AT A TIME WHEN JOBS ARE UNFILLED BECAUSE OF SHORTAGES OF QUALIFIED WORKERS.

CAREER EDUCATION CONCERNS

1 EARLY EXPOSURE TO WORK AND WORKERS
(INVOLVED LEARNER)

2 AWARENESS OF PERSONAL ABILITIES
(AGGRESSIVE LEARNER)

3 AWARENESS OF AVAILABLE OPTIONS
(SUCCESSFUL LEARNER)

4 CONCERN OVER FUTURE CHOICES
(RESPONSIBLE LEARNER)

THE "AGGRESSIVE" LEARNER

TARGETS	CHOOSES GOALS HE CONSIDERS RELEVANT
TESTS	SELF-EVALUATES HIS PROGRESS WITH A NUMBER OF EVALUATION TOOLS
TECHNOLOGY	USES A WIDE VARIETY OF "ALTERNATIVE" LEARNING RESOURCES

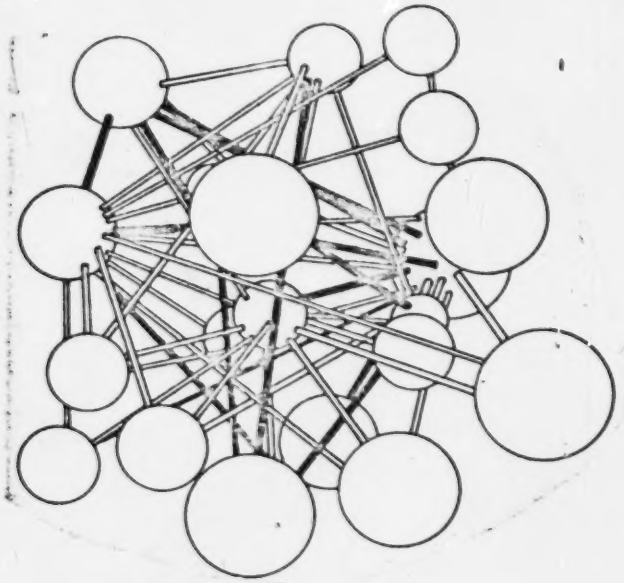
J. THE "AGGRESSIVE" LEARNER

QUESTION:
WHAT DOES "MASTERY" MEAN?

GUIDE:
LEARNING TIME IS NOT THE SOLE CRITERION

CHOICE: THE LEARNER
A. DOES WHAT HE IS TOLD
B. DOES WHAT HE WANTS
C. ATTAINS COMPLEX GOALS
D. STICKS WITH THE BASICS
E. TAKES TOO LONG TO LEARN

QUESTION: WHAT DOES A COMPLEX GOAL MEAN ?



CHOICES:

A. IMPOSSIBLE TO LEARN

B. BUILT UPON PREVIOUS LEARNING

C. DEMANDS A LOT OF APTITUDE

D. FOR HIGH IQ's ONLY

GUIDE:

TIE THINGS TOGETHER!

WE CAN PREDICT: THIS WILL HAPPEN IF THEY DON'T LEARN TO EARN

WE CAN'T PREDICT: THE FUTURE

SINCE LEARNERS WILL BE PREPARING FOR

- JOBS WHICH EXIST,
- EMERGING JOBS, AND
- JOBS OF THE FUTURE,

OCCUPATIONAL AND CAREER EDUCATORS NEED TO PLACE INCREASED EMPHASIS ON DEVELOPING GENERAL LEARNING ABILITY AS WELL AS SPECIFIC SKILLS

M. FORESEEABLE/UNFORESEEABLE

CAREER EDUCATION
CHECKPOINTS IN A CONTINUING PROCESS

AGE	KNOWLEDGE	PERFORMANCE	ATTITUDE
9	CONCEPT OF WORK	GAIN FIRST HAND FAMILIARITY	I VALUE WORK
12	BROAD FAMILIES OF OCCUPATIONS	LOOK OBJECTIVELY AT SELF	THIS WILL AFFECT ME
15	AWARENESS OF OPTIONS	ASSESS HIS OWN POTENTIAL	I MUST WEIGH ALL CHOICES
18	AWARENESS OF CONSEQUENCES	CHOOSE THE NEXT STEP	THIS IS WHAT I WANT
21	CAREER PLAN	WORK	I AM ABLE AND WILLING TO WORK

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CAREER EDUCATION ELIMINATES THE "FUZZY" CURRICULUM

ANALYSIS

1. CURRICULUM CHANGE TOUCHES ALL PORTIONS OF THE SCHOOL PROGRAM (WE NEED CLEAR AND TEACHABLE OBJECTIVES)

2. TEACHER UNDERSTANDINGS MAKE THE JOB EASIER (CAREER EDUCATION IS NOT A NEW SPECIALTY)

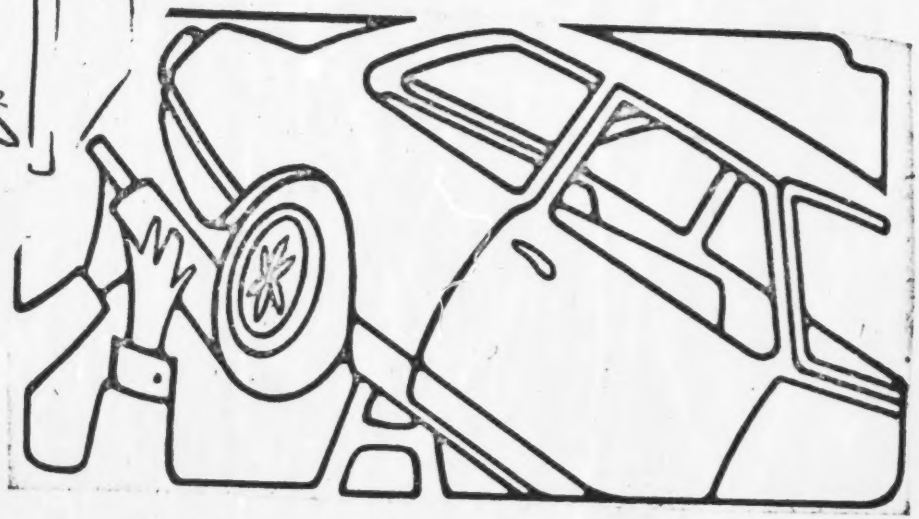
3. ALL STUDENTS SHOULD BE ABLE TO PURSUE PURPOSEFUL GOALS WHETHER THESE GOALS BE PREPARATION FOR FUTURE EDUCATION, PREPARATION FOR EMPLOYMENT, OR BOTH

THE IMPLEMENTATION OF CAREER EDUCATION IS DEPENDENT UPON CURRICULUM CHANGE AND THE DEVELOPMENT OF TEACHER UNDERSTANDINGS

Writing a wheel-barrel full of behavioral objectives for your automotives course may satisfy your boss

BUT

One good illustration would make curriculum choices a lot easier for him and students



ASK

WHAT'S IN IT FOR YOU?

BEFORE

WRITING GOALS

QUESTION: WHAT DOES SELF-EVALUATION MEAN?..

CHOICE: THE LEARNER CAN

A. NEVER FAIL
B. NEVER WIN
C. EASILY KEEP SCORE
D. LEARN FAST
E. FOOL AROUND

GUIDE:

"HOW WELL AM I DOING?"

HOW TO RATE AN AIR-CONDITIONER:

the tools
are coming.
It's time
to think
of how
to use them.

OR ELSE

THIS MESS
MAY HAPPEN!

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T. EDUC. TECHNOLOGY

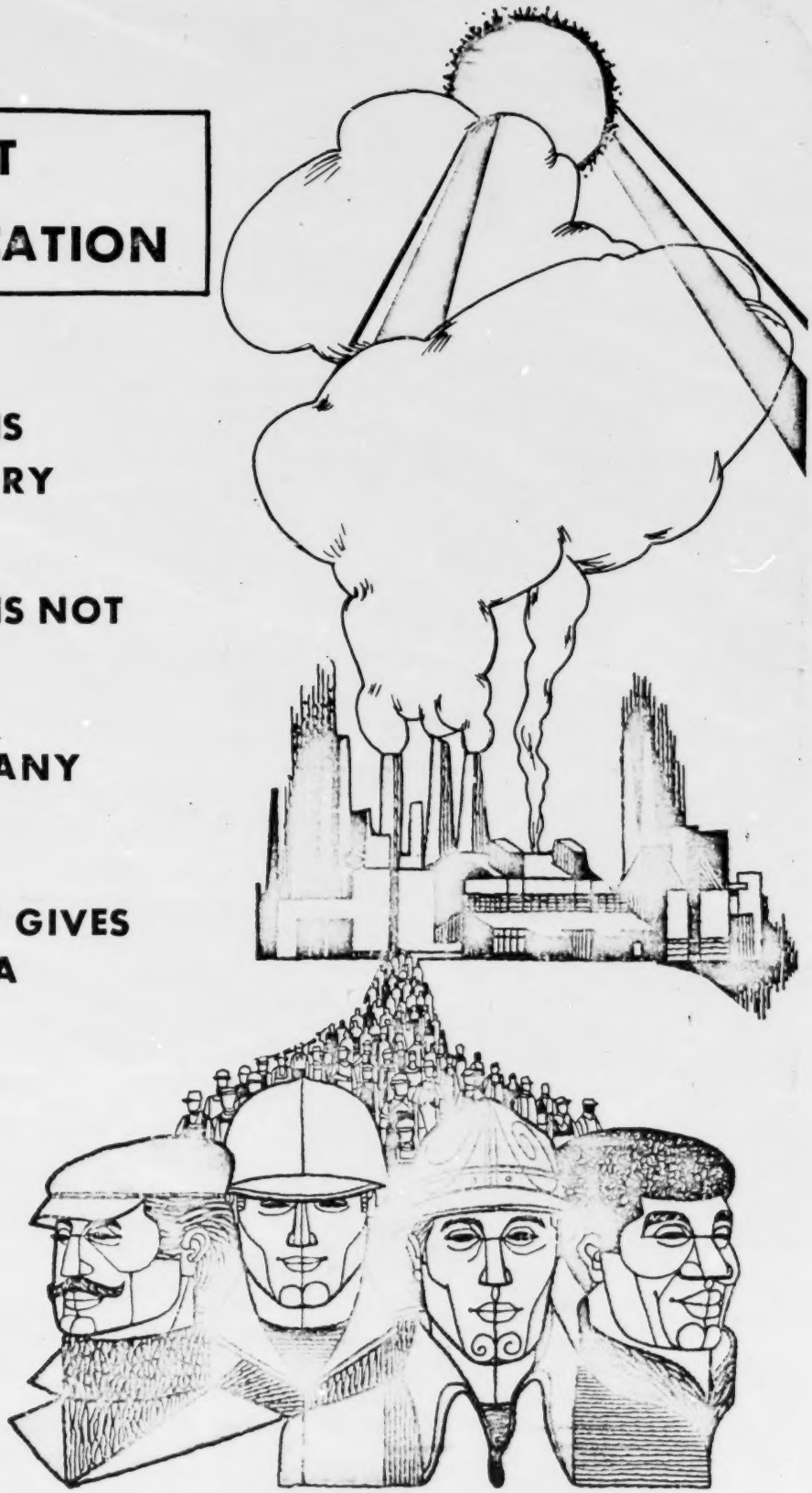
THIS IS NOT CAREER EDUCATION

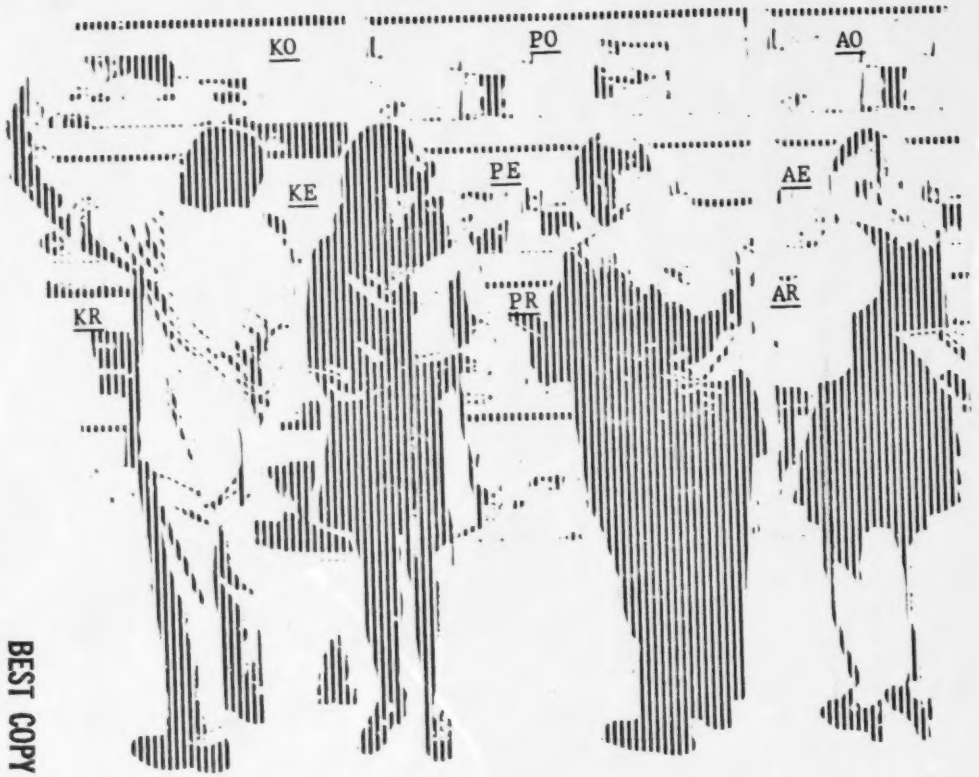
A. THE SCHOOL IS NOT A FACTORY

B. THE LEARNER IS NOT A PRODUCT

C. WORK HAS MANY MORE FACES

D. TECHNOLOGY GIVES THE WORKER A NEW ROLE





MODULE COMPONENTS

KO - KNOWLEDGE OBJECTIVES
KE - KNOWLEDGE EVALUATIONS
KR - KNOWLEDGE RESOURCES

PO - PERFORMANCE OBJECTIVES
PE - PERFORMANCE EVALUATIONS
PR - PERFORMANCE RESOURCES

AO - ATTITUDE OBJECTIVES
AE - ATTITUDE EVALUATIONS
AR - ATTITUDE RER RESOURCES

EACH OF THESE TEACHERS WILL ASSEMBLE A DIFFERENT LESSON FROM THESE MODULE COMPONENTS

MODULE CONFIGURATION

KO	PO	AO
KE	PE	AE
KR	PR	AR

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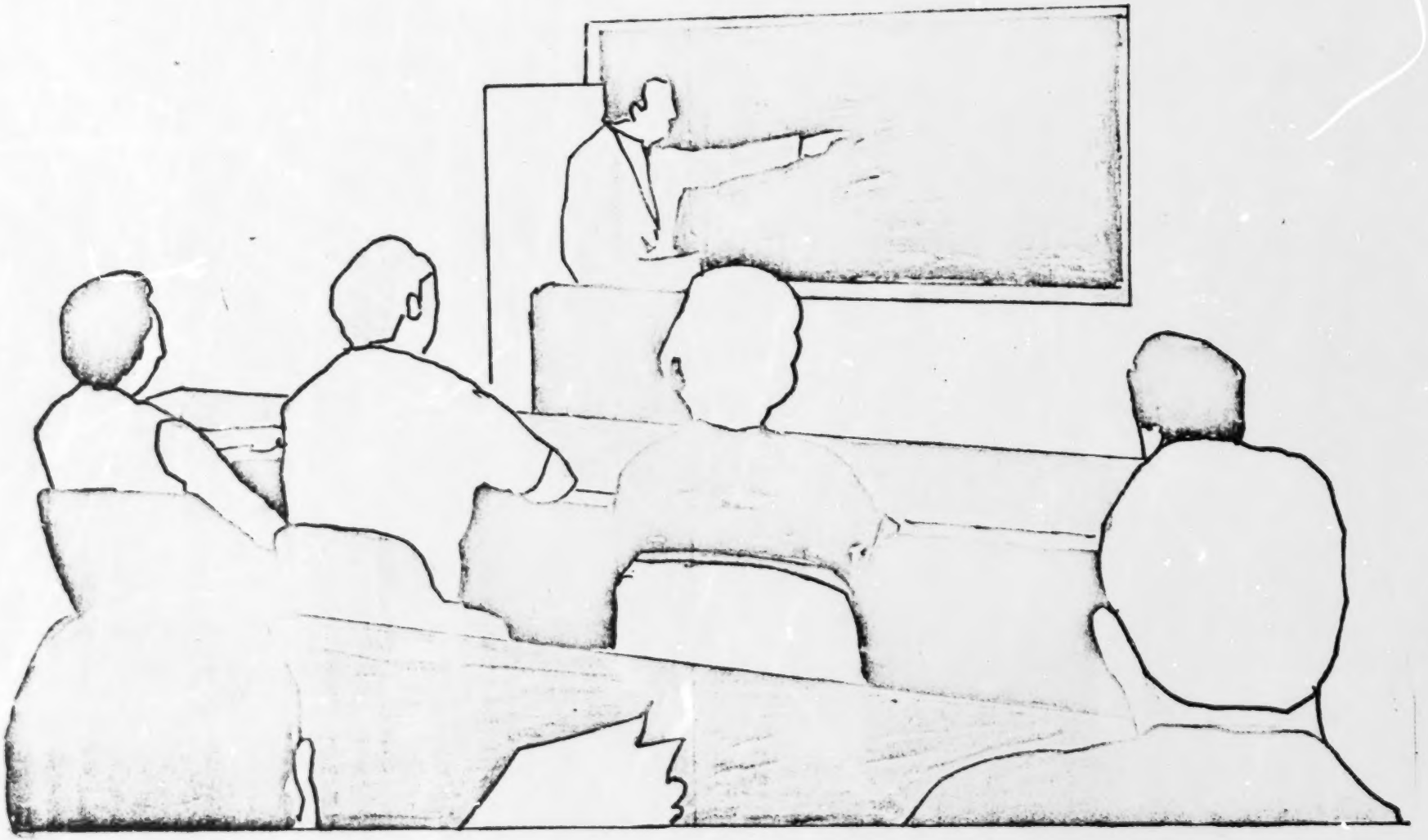
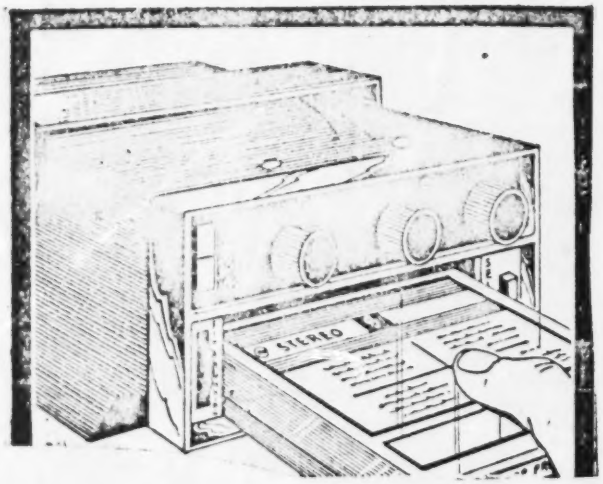
Now you can personalize our thoroughly modern course.

Writeable goals make it easy.





EACH MODULE MUST
HAVE CLEAR GOALS
THAT ARE SELF-STANDING
AND COMPATIBLE

A MODULE IS
SELF-STANDING WHEN
IT CAN BE USED BY
ITSELF ALONE WITHOUT THE
PHYSICAL PRESENCE OF
A TEACHER

A MODULE IS
COMPATIBLE WHEN
IT CAN BE USED BY A NUMBER
OF DIFFERENT LEARNERS IN A
VARIETY OF CIRCUMSTANCES
BOTH INSIDE AND OUTSIDE
THE SCHOOL

LEARNERS CAN THEN BUILD A WIDE VARIETY OF
CAREERS WITH THE MODULES THEY MASTER

THE MODULE GAME

INSTRUCTIONAL AND SELF-INSTRUCTIONAL

CHECK THEM OFF

BINGO!

YOUR MODULE		
knowledge targets ✓	performance targets ✓	attitude targets ✓
knowledge tests ✓	performance tests ✓	attitude tests ✓
knowledge technology ✓	performance technology ✓	attitude technology ✓
(✓) = component present		

NINE CHECKS MEANS THAT A BALANCED MODULE HAS A LITTLE BIT OF EACH COMPONENT

POSTTEST
ON
DEVELOPING OCCUPATIONAL EDUCATION
MODULES THAT CAN ADD UP TO CAREERS

DIRECTIONS: Circle the answer selected on the ANSWER SHEET provided.

Compare the answer selected with the ANNOTATED SUGGESTED ANSWER KEY.

TRUE FALSE 1. The learner's behavior is controlled by the learner's own perceptions.

TRUE FALSE 2. If the learner perceives learning to be a hassle, learning will be confused and unsystematic.

TRUE FALSE 3. If the learner perceives mastery learning to be self-rewarding, the motivation for learning will pass from external rewards to interior self-fulfillment.

TRUE FALSE 4. Much of the learner's perception of learning depends on the evaluation process of both the learner and of the teacher.

TRUE FALSE 5. Proper evaluation brings two things to the learning evaluation transaction: clear objectives and a yardstick of progress towards prespecified objectives.

TRUE FALSE 6. Unless progress can be made as measured by gains scores, there is no guarantee that the learner will perceive modules as useful.

TRUE FALSE 7. When a learner perceives a module as personally useful, the learner can generate the abundant supply of learning enthusiasm that is education's greatest force.

TRUE FALSE 8. Educational evaluation that centers upon numbers, grades, marginal comments, pats on the head, kicks in the teeth, gold stars, and trivial token rewards is self-rewarding to the learner.

TRUE FALSE 9. It can be stated as a general principle that all learners reject all external objects since none of them can be prized.

TRUE FALSE 10. It can be stated that a teacher who knows a learner is capable of specifying the external rewards that reward a specific learner.

TRUE FALSE 11. It can be stated that a teacher who understands human behavior realizes that internal rewards motivate people more than external rewards.

TRUE FALSE 12. Internal motivation occurs when a learner discovers a newly acquired useful competency in oneself.

TRUE FALSE 13. Course building evaluation is shifted towards what learners do instead of what learners remember.

TRUE FALSE 14. This implies that the objectives of a module builder must include knowledge objectives, performance objectives, and attitude objectives.

TRUE FALSE 15. This form of module building evaluation implies that the diagnostic pretests of modules must contain knowledge evaluation, performance evaluation, and attitude evaluation.

TRUE FALSE 16. This form of module building applied to learning environments implies that students must have a choice of knowledge resources, performance resources, and attitude resources.

TRUE FALSE 17. This form of module building implies that mastery posttests must provide for knowledge evaluation, performance evaluation, and attitude evaluation in determining gains scores.

TRUE FALSE 18. If a teacher being evaluated realizes that the supervisor is looking for open windows and clean floors, this teacher can be expected to walk into a classroom and immediately close all windows and toss paper on the floor.

TRUE FALSE 19. An elementary teacher will stress reading, writing, and spelling if these are criteria upon which teacher evaluation is based.

TRUE FALSE 20. A secondary teacher will stress passing college entrance exams or finding good entry level jobs if these are the criteria upon which teacher evaluation is based.

TRUE FALSE 21. This implies that if administrators want teachers to emphasize the qualities of humanism, and to teach for these humanistic qualities, then administrators must find ways to measure and evaluate progress in this area.

TRUE FALSE 22. Humanistic problems are the kind that can be completely solved by computers and statistical analysis.

TRUE FALSE 23. The high requirements placed in a module by a module builder must in some way tell the learner that the learner has a built-in potential for succeeding.

TRUE FALSE 24. If the objectives of a module are framed in such a way as to tell the student that these objectives are impossible to attain, then this module is nothing more than the product of a course chopper.

TRUE FALSE 25. A course chopper substitute for a module is a set of expectations, rules, and standards that cannot be achieved by the learners for whom the materials are designed.

TRUE FALSE 26. A module builder comes up with expectations (objectives), criteria (pretests and posttests), and a variety of opportunities (alternative environments) which give the learner a taste of success.

TRUE FALSE 27. Well built modules make learners less grade-conscious because learners begin to experience the joys of learning by expanding potential horizons.

TRUE FALSE 28. The results of module building are always perfect learning packages.

TRUE FALSE 29. The results of module building are always open to continuous improvement.

TRUE FALSE 30. Even the imperfect results of module building reach learners in order to teach them because modules are able to individualize.

ANSWER SHEET

1.	TRUE	FALSE	16.	TRUE	FALSE
2.	TRUE	FALSE	17.	TRUE	FALSE
3.	TRUE	FALSE	18.	TRUE	FALSE
4.	TRUE	FALSE	19.	TRUE	FALSE
5.	TRUE	FALSE	20.	TRUE	FALSE
6.	TRUE	FALSE	21.	TRUE	FALSE
7.	TRUE	FALSE	22.	TRUE	FALSE
8.	TRUE	FALSE	23.	TRUE	FALSE
9.	TRUE	FALSE	24.	TRUE	FALSE
10.	TRUE	FALSE	25.	TRUE	FALSE
11.	TRUE	FALSE	26.	TRUE	FALSE
12.	TRUE	FALSE	27.	TRUE	FALSE
13.	TRUE	FALSE	28.	TRUE	FALSE
14.	TRUE	FALSE	29.	TRUE	FALSE
15.	TRUE	FALSE	30.	TRUE	FALSE

ANNOTATED SUGGESTED ANSWER KEY

	ANSWER	ANNOTATION
1.	True	Perception controls behavior
2.	True	
3.	True	Self-fulfillment
4.	True	
5.	True	
6.	True	Gains scores
7.	True	
8.	False	External motivation
9.	False	Only some externals reward
10.	True	Internal motivation
11.	True	
12.	True	
13.	True	
14.	True	KO, PO, AO
15.	True	KE, PE, AE
16.	True	KR, PR, AR
17.	True	KE, PE, AE
18.	False	
19.	True	
20.	True	
21.	True	Humanistic values
22.	False	
23.	True	
24.	True	
25.	True	
26.	True	
27.	True	
28.	False	
29.	True	
30.	True	